Discussion of the phenomenon of serial HIV testers

Introduction

HIV testing is without doubt a stressful experience for those seeking a test, even if the person has been tested before (Fisher et al. 2002). The advent of "rapid" or point of care HIV testing has dramatically shortened the time it takes to receive as result (Walensky & Paltiel 2006). Emerging testing technology has also given rise to an emerging behavioural trend among some of those who attend testing clinics, that of the repeat HIV tester (Walensky & Paltiel 2006). These individuals despite exhibiting low or in some cases even non-existent risk behaviour present for HIV testing on repeated occasions in a very short space of time, even though they continually testing negative. Not only does this behaviour indicate a degree of underlying health anxiety (Bor et al. 1989; Green & Davey 1992), but repetitive testing in individuals drawn from low-risk populations can increase the chances of clients receiving a false-positive with some brands of test kit (Walensky & Paltiel 2006); this obviously adds to client anxiety even further and undoubtedly leads to further inappropriate repeat testing tendencies. Moreover, repeat testing of demonstrably negative individuals is a waste of valuable resources (Fisher et al. 2002). This article will appraise the evidence in terms of whether it may instead be more appropriate to offer individuals other forms of intervention to manage their behaviour rather than continually testing them for HIV.

Discussion

Characterizing repetitive testing behaviour

The potential psychological consequences of HIV testing have been recognized for some time (Perry et al. 1993). Despite now being a treatable condition, the association between HIV, AIDS and death appears firmly fixed in the public psyche (Gonzalez 2010; Green & Davey 1992; Perry et al. 1993). To a degree this accounts for the extent to which HIV is still able to provoke anxiety among those who perceive themselves to be at risk, or believe themselves infected (Perry et al. 1993). The problem is that for a minority this HIV related anxiety becomes an unhealthy preoccupation (Green & Davey 1992), and in some cases may be quite debilitating (Fisher et al. 2002; Phillips et al. 1995). Perceived seroconversion among these clients is often the physical symptoms of anxiety mimicking some of those associated with primary HIV infection (Bor et al. 1989; Green & Davey 1992; Miller et al. 1985; Phillips et al. 1995). This pseudo-seroconversion is typically easy to distinguish from the real thing because the clustering of the symptoms described does not follow that typically observed in acute retroviral syndrome; both in terms of symptoms described and time frame (Bor et al. 1989; Green & Davey 1992; Miller et al. 1985). Furthermore, repeat unnecessary testing behaviour may result in individuals "seeking out" potentially risky situations in order to necessitate further testing (Fisher et al. 2001; Green & Davey 1992; Ryder et al. 2005).

It is important to distinguish repeat testers from regular testers (Fisher et al. 2002). Regular testers are those who test at scheduled intervals, usually every 3 to 6 months and are typically members of high risk populations (Fisher et al. 2002). They are not obsessed with the possibility they may have acquired HIV, testing simply forms part of a wider set of practices aimed at maintaining their health (Fisher et al. 2002). In contrast, repeat testers

present at often shorter, more erratic intervals, typically reporting inconsistent incidences of risk behaviour (Bor et al. 1989; Fisher et al. 2002). Additionally, they may "shop around" testing services offered by different organizations in order to facilitate continued access to testing, and to avoid being recognized as a repeat tester and thus either being denied a test or treated as a time waster.

Sharing of information on repeat testers between services is a conceivable way of reducing the incidence of inappropriate testing and may in fact facilitate linkage for repeat testers to more appropriate services (Fisher et al. 2002). However, if information is shared it must be done carefully to ensure that confidentiality is not compromised. Availability of home testing in the form of a rapid test or postal testing may be another alternative for repeat testers to access testing at the frequency their condition dictates (Walensky & Paltiel 2006). Obviously though this doesn't address the psychological issues at the root of their behaviour and is likely to further exacerbate the condition (Fisher et al. 2002). Referral to home testing modalities is worth considering from the respect that these forms of testing must typically be paid for out of pocket (Walensky & Paltiel 2006). Therefore, cost alone may discourage further testing as well as promoting behavioural revaluation on the part of those seeking inappropriate testing (Walensky & Paltiel 2006). This course of action constitutes a form of "tough love" and would potentially be made all the more effective if access to clinical forms of rapid testing were precluded for these individuals (Walensky & Paltiel 2006). This approach does however raise a number of ethical considerations which would need to be fully evaluated prior to considering it as a course of action (Fisher et al. 2002).

The counselling process and repetitive testers

Sometimes a tendency to test repetitively results from an isolated episode of the kinds of behaviour classified as high-risk, typically arising from a temporary lack of judgment and sustained by ongoing guilt issues; or the anxiety of having been temporarily classified as within an at risk category (Bor et al. 1986; Fisher et al. 2002; Green & Davey 1992). This is why it is important to classify an individual's level of risk based on more enduring patterns of behaviour, rather than a single risky incident (Bor et al. 1989). If this comes through during post-test counselling it may in fact reduce the number of clients who develop a tendency to repetitively test (Bor et al. 1989; Fisher et al. 2002). Indeed the quality and relevance of information imparted during pre and post test counselling must be carefully and regularly evaluated to ensure that clients develop the correct knowledge in terms of what constitutes risk behaviour and what test results mean (Fisher et al. 2002). Window periods are something which need particular attention in clarification, as window periods represent the greatest source of anxiety for most clients (Fisher et al. 2002; Green & Davey 1992), being a kind of limbo period in which an individual waits to find out whether they are infected or not (Green & Davey 1992). Furthermore, research indicates that a significant volume of inappropriate repeat testing can be prevented simply by reassurance from a testing counsellor and by correcting knowledge deficits (Bor et al. 1989; Fisher et al. 2002). However, in cases of anxiety-related repetitive testing continued suggestion of further testing should be avoided

once negative tests are conclusive according to relevant protocols; unless new risk behavior come to light (Bor et al. 1989; Fisher et al. 2002). Furthermore a perpetual cycle of reassurance may not in fact be the optimum approach (Bor et al. 1989; Green & Davey 1992). Often such reassurance reinforces repetitive testing behavior, as these individuals tend to focus on the least likely scenario and have quite extensive knowledge of HIV related topics (Green & Davey 1992). Instead, these clients need to be provided with health education based around the giving of information not about preventing HIV, but about how to realistically appraise their risk of acquiring HIV (Bor et al. 1989; Green & Davey 1992). This involves increasing a client's self-efficacy to acknowledge the irrationality of their beliefs and to recognize the physical symptoms of anxiety (Bor et al. 1989; Green & Davey 1992). Obviously, the continued management of these clients is outside HIV testers scope of practice (Bor et al. 1989; Fisher et al. 2002; Green & Davey 1992). Therefore, what these clients need is referral to mental health services, rather than continued testing (Bor et al. 1989; Fisher et al. 2002; Green & Davey 1992), though whether further HIV testing should be refused in such cases needs proper ethical evaluation (Bor et al. 1989; Fisher et al. 2002). Alternatively, where resources permit it may be prudent to assign a specific staff member to manage repeat testers, both to prevent unnecessary testing and to facilitate referral to a more appropriate service (Bor et al. 1989; Fisher et al. 2002).

Repetitive testing behavior as a form of social support

Some individuals present for HIV testing on multiple occasions simply because they are seeking social support, they may or may not have had a genuine risk episode in the first place (Fisher et al. 2002). For these clients obtaining testing is not the object of their behavior, rather receiving an HIV test is simply a necessary evil they must endure as a means to both prolong and receive that which they really crave, interaction and empathy (Bor et al. 1989; Fisher et al. 2002). Actually, it is likely that clients merely seeking social support have very little actual fear of HIV at all (Bor et al. 1989; Fisher et al. 2002). The problem with this is that dependent relationships may develop between practitioner and tester (Bor et al. 1989; Fisher et al. 2002), with clients continually reporting HIV related fears to maintain contact with the testing counsellor (Bor et al. 1989). Emotional support of these clients is obviously best managed by a more appropriate dedicated mental health counselling service (Fisher et al. 2002).

Increased risk of false positives

While repetitive testing behavior has been observed since early in the HIV epidemic (Bor et al. 1989; Green & Davey 1992), rapid testing technology while not necessarily increasing the incidence of this behavior, has increased the chances of the behavior being observed by health professionals (Fisher et al. 2002); as a feature of wider HIV related anxiety issues in the "worried well" (Lombardo 2004). Rapid testing is the modality of choice for repetitive testers because it gives near instant gratification to their sometimes pathological desire both to test (Lombardo 2004; Walensky & Paltiel 2006). In addition to the health related aspects of excessive HIV testing, a technical problem also exists (Walensky & Paltiel 2006). While rapid tests are as accurate at detecting HIV infection as laboratory equivalents, when a high volume

of HIV tests are performed in individuals from low risk HIV demographic groups it increases the chances of a false positive result being received (Klarkowski et al. 2014; Walensky & Paltiel 2006). Repeat testers tend to be drawn from low risk demographic groups (Fisher et al. 2002; Lombardo 2004). Obviously, if a false positive result is received by a repetitive tester then the results could be potentially catastrophic, resulting in an acute crisis or at the very least even more HIV-related anxiety and further inappropriate testing behavior (Lombardo 2004; Walensky & Paltiel 2006). Basically, in the mind of the repeat tester this false-positive result affirms their beliefs that they are in fact suffering from HIV (Lombardo 2004). Moreover, the cycle of repetitive testing is likely to continue even longer as a result of such a false-positive, because even when subsequent negative results are received, the repetitive tester will refuse to believe them (Lombardo 2004).

<u>Delayed seroconversion</u>

As we have already seen, repetitive testers often tend to believe the worst case scenario and present with implausible reasons for requiring HIV testing (Lombardo 2004). In the case of constantly negative results one such implausibility frequently tabled is the possibility of delayed seroconversion (Lombardo 2004). A seroconversion is regarded as being delayed when it takes greater than 6 months for antibodies to show on a standard HIV antibody test (Meyohas et al. 1995). With modern testing technologies such as Polymerase Chain Reaction (PCR) tests delayed cases have largely been eliminated (Pollet et al. 2013). However, this doesn't stop those with high levels of HIV-related anxiety from insisting that their case must be one of those so exponentially rare that it has to be a case of delayed seroconversion (Lombardo 2004). In practice where delayed seroconversion does occur it is usually in those with preexisting immunocompromisation of some kind, for example transplant patients on immunosuppressive medications (Pollet et al. 2013). Coinfection with Hepatitis C may also affect the time it takes for HIV antibodies to become detectable, as can the early administration of antiretroviral medication (Pollet et al. 2013). In the case of antiretroviral medication, this has most likely been administered as a prophylactic measure to prevent infection after a potentially risky event (Apetrei 1998). Normally seroconversion will only occur in these cases where medication adherence has been less than complete (Apetrei 1998). Additionally, superficial needlestick injuries where only a small viral inoculation takes place have been proposed as a possible cause of late seroconversion (Meyohas et al. 1995). Individuals claiming late seroconversion encountered in standard practice are almost certainly not going to be cases of delayed seroconversion. They should not routinely be referred for costly high tech additional testing such as PCR. Instead it is better as in the previous scenarios discussed to facilitate referral to an appropriate mental health service where their health related anxiety issues can be addressed. Alternatively, these individuals can be instructed to present for a further standard HIV test after a much prolonged period of time, after which based on genuine documented cases of delayed seroconversion even a standard HIV antibody test will report a positive result.

"Bugchasing"

A recent and widely sensationalized topic in the media has been that of "bugchasers", individuals who actively seek opportunities to become infected with HIV (Gonzalez 2010). Most commonly this is done through having unprotected sex, usually receptive anal sex, with someone who is HIV positive (Gauthier & Forsyth 1998). The HIV positive partner may or may not know about the intentions of the bugchaser, though if they are aware they are colloquially termed "giftgivers"; the "gift" in question of course being the HIV virus they are carrying (Gauthier & Forsyth 1998). The efficacy of acquiring HIV from such an encounter can be substantially increased if the positive partner is not on antiretroviral medication or if their viral load is not yet undetectable. Again, bugchasers may actively seek out such partners (Gauthier & Forsyth 1998). Furthermore, sex parties where seroconversion is actively encouraged definitely take place (Gauthier & Forsyth 1998), e.g. CumUnion. Whether bugchasing behavior gives rise to repetitive HIV testing is difficult to determine (Gauthier & Forsyth 1998), but it is possible given the fact that the only way to confirm HIV infection for sure is through testing (Fisher et al. 2002). There appear to be a number of differing reasons why people bugchase (Gauthier & Forsyth 1998). For some it is because they have a fetish for high risk sex, for others it is because they believe that becoming HIV infected is an almost inevitable aspect of modern gay life, particularly when they are in a serodiscordant relationship (Gauthier & Forsyth 1998). Indeed, many bugchasers seem to believe that becoming HIV positive enables them to more easily stay in a relationship with a positive partner (Bor et al. 1989; Gauthier & Forsyth 1998)). Others seek to become positive because of the sympathy, sense of belonging and social support that those living with the disease receive (Gauthier & Forsyth 1998).

It is important not to confuse those who engage in so called bareback sex, that is anal sex without a condom, with bugchasers (Gauthier & Forsyth 1998; Gonzalez 2010). While barebacking puts one at increased risk of acquiring HIV, bugchasers are likely to make up only a very small proportion of those engaging in the practice (Gonzalez 2010). In actual fact barebacking is often used as a kind of intrinsic, though misguided prevention strategy (Gonzalez 2010). Individuals do what is termed serosorting, only engaging in sex with those of the same HIV status (Gonzalez 2010). Such behavior is observed in both positive and negative individuals, and is obviously far from ideal in the degree to which it can confer protection from HIV (Gonzalez 2010). Individuals belonging to such groups may on occasion have sex with those outside of the group, thus making it possible for HIV to be introduced into a previously entirely negative sexual cluster. Furthermore, for those who are already HIV positive, such a practice opens up the possibility of reinfection with variant strains of the virus, which may in turn give rise to resistant strains within an individual and subsequent passage of these to others (Gauthier & Forsyth 1998; Smith et al. 2005). The reason we reference serosorting in regard to barebacking in this section is that bugchasers may lie about their serostatus in order to gain membership of such sexual clusters as a means to fulfil their desire to become infected with HIV (Gauthier & Forsyth 1998; Gonzalez 2010).

Conclusion

In summary, individuals and organizations offering HIV testing need to be aware of the problem of repetitive testers, both to maintain the integrity of HIV testing services and to develop strategies to appropriately manage the behavior. It is likely that a majority of those occupationally engaged in offering HIV testing, particularly rapid testing have observed instances of this behavior at some time or another. Rather than continued testing, what individuals exhibiting repetitive testing tendencies need is referred to an appropriate mental health or counselling service. Those with testing responsibilities should therefore work to build effective referral pathways to facilitate the management of these clients.

Jose Perez de la Cruz, BPubHlth, **Public Health Practitioner** March 2015

References

Apetrei, C, Tamalet, C, Edlinger, C, Damond, F, Descamps, D, Saimont, A, Brun-Vizinet, F & Simon, F 1999, 'Delayed seroconversion after antiretroviral therapy', *AIDS*, vol. 12, no. 12, p. 1935.

Bor, R, Perry, L, Miller, R & Jackson, J 1989, 'Strategies for counselling the 'worried well' in relation to AIDS: discussion paper', *Journal of the Royal Society of Medicine*, vol. 82, no. 4, pp. 218-220.

Fisher, J, DelGado, B, Melchreit, R & Spurlock-Mclendon 2002, 'The dynamics of repeat HIV testing and interventions for repeat HIV testers', *AIDS and Behavior*, vol.6, no. 2, pp. 183-191.

Gauthier, D & Forsyth, C 1998, 'Bareback sex, bug chasers, and the gift of death', *Deviant Behavior*, vol. 20, no. 1, pp. 85-100.

Gonzalez, O 2010, 'Tracking the bugchaser: Giving the gift of HIV/AIDS', *Cultural Critique*, no. 75, pp. 82-113.

Green, J & Davey, T 1992, 'Counselling with the 'worried well', *Counselling Psychology Quarterly*, vol. 5, no. 2, pp. 213-220.

Klarkowski, D, O'Brien, D, Shanks, L & Singh, K 2014, 'Causes of false-positive HIV rapid diagnostic test results', vol. 12, no. 1, pp. 49-62./

Lombardo, A 2004, 'Anatomy of Fear: Mead's theory of the past and the experience of the HIV/AIDS "Worried Well", *Symbolic Interaction*, vol. 27, no. 4, pp. 531-548.

Meyohas, M, Morand-Joubert, L & Van de Wiel, P 1995, 'Time to HIV seroconversion after needlestick injury', *The Lancet*, vol. 345, p. 1634.

Miller, D, Green J, Farmer, R & Carroll, G 1985, 'A 'pseudo-AIDS syndrome following from fear of AIDS', *British Journal of Psychiatry*, no. 146, pp. 550-552.

Perry,S, Jacobsberg, L, Card, C, Ashman, T, Frances, A & Fishman, B 1993, 'Severity of psychiatric symptoms after HIV testing', *The American Journal of Psychiatry*, vol. 150, no. 5, pp. 775-779.

Phillips, K, Paul, J, Kegeles, S, Stall, R, Hoff, C & Coates, T 1995, 'Predictors of repeat HIV among gay and bisexual men', *AIDS*, vol. 9, no. 7, pp. 769-775.

Pollett, S, Wienholt, L, Lee, F, Adelstein, S, Macleod, C, Chen, R & Garsia, R 2013, 'A case of HIV-1 slow seroconversion: diagnostic implications', *International Journal of STD and AIDS*, vol. 24, no. 2, p. 152.

Ryder, K, Haubrich, D, Calla, D, Myers, T, Burchell, A & Calzavara, L 2005, 'Psychosocial Impact of Repeat HIV-Negative Testing: A Follow-Up Study', *AIDS and Behavior*, vol. 9, no. 4, pp. 459-464.

Smith, D, Richman, D & Little, S 2005, 'HIV Superinfection', *The Journal of Infectious Diseases*, vol. 192, no. 3, pp. 438-444.

Walensky, R & Paltiel, A 2006, 'Rapid HIV testing at home: Does its solve a problem or create one?', *Annals of Internal Medicine*, vol. 145, no. 6, p. 459.